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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/998,776	12/03/2001	Eric Latino	GES003/JTN	7102

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EXAMINER

TRAN, HIEN THI

ART UNIT	PAPER NUMBER
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1764

DATE MAILED: 10/31/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/998,776

Applicant(s)

LATINO ET AL.

Examiner

Hien Tran

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08/22/2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,4-10,12 and 14-17 is/are pending in the application.
- 4a) Of the above claim(s) 14 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,4-10,12 and 15-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claim(s) 1,2,4-10,12 and 14-17 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 August 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☒ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Priority

1. Acknowledgment is made of applicant's claim for foreign priority based on an application filed in Canada on 2/28/01. It is noted, however, that applicant has not filed a certified copy of the above application as required by 35 U.S.C. 119(b).

Drawings

2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the "sample extraction point" (claim 17) must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will

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be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

3. The drawings have not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the drawings to comply with CFR 1.84(p)(5), e.g. they should include the reference sign(s) mentioned in the specification and vice versa.

Claim Objections

4. Claims 4-5 are objected to because of the following informalities:

In claim 4, lines 2, 4 “convertor” should be changed to --converter-- (note claim 1, line 8). See claim 5 likewise.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 2, 4-5, 15, 17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 2, it is unclear as to what structural limitation applicants are attempting to recite, and how much is considered “sufficient to prevent significant pressure drop”.

In claim 4, it is unclear as to which structural limitation applicants are attempting to recite by “.... the same”, whether applicants are implied the size or the type of catalyst. See claim 5 likewise.

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In claim 15, line 10 it is unclear as to which web is implied.

In claim 17 it is unclear as to where the sample extraction point is shown in the drawings.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459

(1966), that are applied for establishing a background for determining obviousness under 35

U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

9. The art area applicable to the instant invention is that of a pollution control device.

One of ordinary skill in this art is considered to have at least a B.S. degree, with additional education in the field and at least 5 years practical experience working in the art; is aware of the state of the art as shown by the references of record, to include those cited by applicants and the examiner (*ESSO Research & Engineering V Kahn & Co*, 183 USPQ 582 1974) and who is presumed to know something about the art apart from what references alone teach (*In re Bode*, 193 USPQ 12, (16) CCPA 1977); and who is motivated by economics to depart from the prior art to reduce costs consistent with the desired product characteristics. *In re*

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Clinton 188 USPQ 365, 367 (CCPA 1976) and *In re Thompson* 192 USPQ 275, 277 (CCPA 1976).

10. Claims 1-2, 4-9, 15-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Morita et al (4,866,932) in view of Lane et al (5,611,198) and Schock et al (4,218,422).

With respect to claims 1, 15-16, Morita et al discloses a pollution control device comprising:

a body 11 having a first portion 11a and a second portion 11b releasably connected together to form a chamber therebetween;

an exhaust gas inlet 13 on said body;

an exhaust gas outlet 15 on said body; at least one web member 21 across said chamber;

and

a plurality of catalytic converter elements 27 held in said web member; wherein exhaust gases pass through said catalytic converter elements 27 when passing through said chamber from said inlet to said outlet (see, for example, Figs. 3-5; col. 3, line 12 to col. 4, line 12).

The apparatus of Morita et al is substantially the same as that of the instant claims, but is silent as to whether more than one web member may be provided.

However, Lane et al discloses the conventionality of providing more than one web members, each holding a plurality of catalytic converter elements.

It would have been obvious to one having ordinary skill in the art to provide more than one web member as taught by Lane et al in the apparatus of Morita et al for supporting a plurality of catalyst converter elements so as to improve the purification of exhaust gases thereof.

Morita et al also fails to disclose provision of an injector between the two webs.

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However, Schock et al discloses provision of a gas injector 62 associated with a pump for injecting air in the manifold between the two catalyst beds and facilitating a catalytic reaction thereof.

It would have been obvious to one having ordinary skill in the art to provide a gas injector in the manifold between the two catalyst beds as taught by Schock et al in the modified apparatus of Morita et al so as to supply air into the exhaust gas to facilitating the oxidation catalytic reaction thereof.

With respect to claim 2, since it is unclear as to what structural limitation applicants are attempting to recite as set forth above, it appears that the catalytic converter elements 27 of Morita et al define an exhaust gas flow through area which is considered to be sufficient to prevent significant pressure drop between the inlet and the outlet and therefore meets the instant claim.

With respect to claims 4-5, since it is unclear as to what structural limitation applicants are attempting to recite as set forth above, as best understood, apparently Lane et al discloses that the catalyst converter elements 22 and 23 are the same (deNOx catalyst) while the catalyst converter elements 24 (oxidation catalyst) are different from that of elements 22 and 23 (col. 3, lines 5-58).

With respect to claims 6-7, Morita et al discloses that the catalytic converter elements 21 are fixed in said web member 21 by nut and bolts 41 and therefore are capable of being replaced with new ones (col. 3, lines 50-54, col. 4, line 67 to col. 5, line 4).

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With respect to claims 8-9, Morita et al discloses provision of a flow control means, such as an extension of the inlet pipe with closed end and bores which is considered as a baffle to improve a flow of exhaust gases through the chamber (col. 4, lines 28-39).

With respect to claim 15, Morita et al discloses that the web member 21 having openings 21a formed therein for holding the catalytic converter elements 27 (col. 3, lines 43-45).

11. Claims 8-10, 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Morita et al (4,866,932) in view of Lane et al (5,611,198) and Schock et al (4,218,422) as applied to claims 1-2, 4-9, 15-16 in view of Harris (5,026,438).

With respect to claims 8-10, the modified apparatus of Morita et al is substantially the same as that of the instant claims, but fails to disclose a specific shape of the flow control means.

However, Harris discloses provision of a flow control device in formed of a conical baffle 45.

It would have been obvious to one having ordinary skill in the art to substitute the flow control device of Harris for the flow control device of Morita et al for the known and expected results of obtaining the same results in the absence of unexpected results, and since such a modification would have involved a mere change in the shape of a component. A change in shape is generally recognized as being within the level of ordinary skill in the art, absence showing any unexpected results. *In re Dailey*, 357 F.2d 669, 149 USPQ 47 (CCPA 1966).

With respect to claim 17, Harris discloses provision of at least one sample extraction port 14 for withdrawing and analyzing the exhaust gas.

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It would have been obvious to one having ordinary skill in the art to provide the sample extraction port as taught by Harris in the modified apparatus of Morita et al for exhaust gas withdrawal and exhaust gas analysis thereof.

12. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Morita et al (4,866,932) in view of Lane et al (5,611,198) and Schock et al (4,218,422) as applied to claims 1-2, 4-9, 15 above, and further in view of Langen (5,456,079).

With respect to claim 12, Schock et al discloses provision of associating the injector and the pump.

It would have been obvious to one having ordinary skill in the art to select an appropriate type of device, such as blower or pump, for drawing the reducing agent into the exhaust gas in the modified apparatus of Morita et al, on the basis of its suitability for the intended use as a matter of obvious design choice since both devices were art-recognized equivalents at the time the invention was made in drawings fluid into the chamber as evidenced by Langen, and therefore no cause for patentability here.

Response to Arguments

13. Applicant's arguments with respect to claims 1-2, 4-10, 12, 15-17 have been considered but are moot in view of the new ground(s) of rejection.

Applicants argue that Lane et al converter has a single chamber and there is no disclosure that the chamber can be separated to allow access to the web members. Such contention is not persuasive as Lane et al is relied upon for teaching more than one web member. Whether Lane et al does not disclose that the chamber can be separated is irrelevant as the primary reference, Morita et al, is relied upon for such teaching.

Conclusion

14. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hien Tran whose telephone number is (571) 272-1454. The examiner can normally be reached on Tuesday-Friday from 7:30AM-6:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Caldarola can be reached on (571) 272-1454. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR

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system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Hien Tran

Hien Tran
Primary Examiner
Art Unit 1764

HT
October 27, 2005